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# The State of Electronic Benefit Transfer (EBT)

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Working paper

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## Overview

The labels on automated teller (ATM) and point of sale (POS) machines typically list the payment networks that customers may use to access cash or purchase goods at the terminal. Cirrus and Plus are among the more common networks, but in recent years another network logo, QUEST, has also begun appearing at machines across the country. While QUEST resembles the other networks, it differs in a key way: Instead of providing individuals with access to their bank accounts, QUEST allows qualifying individuals to access welfare benefits like food stamps and Temporary Aid to Needy Families (TANF).

QUEST is part of an electronic benefits transfer (EBT) system, which itself belongs to a broader movement toward using technology to deliver governmental benefits in a more cost-effective manner. In spite of its popularity and cost-saving potential, EBT's national effects on diverse stakeholders, such as the federal government, state governments, benefit recipients, and merchants remain unclear due to a lack of scholarly attention. This working paper attempts to advance public understanding by using survey data, media reports, and government documents to tell the EBT story—a story that has grown more intricate than anticipated. Critical chapters include the technology's history, mechanics, procurement, national use, financial impacts, consumer effects, merchant effects, potential expansion, lessons learned, and short-term challenges.

## The History of EBT

Technological advances in the financial world have made conducting transactions through electronic means like debit cards, cheaper and easier than transactions conducted through physical ones like paper coupons. Cognizant of technology's potential to lower the costs of government programs, the Food and Nutrition Service (FNS), the branch of the U. S. Department of Agriculture (USDA) responsible for the Food Stamp Program (FSP), initiated the nation's first EBT pilot project in 1983 in Reading, Pennsylvania (Table 1).[1] While electronic food stamps proved more expensive to operate than paper-based ones, the initiative's popularity among benefit recipients and merchants, coupled with its cost-saving potential, led FNS to initiate other experiments, several of which involved delivering other social benefits electronically in an attempt to share costs among programs.

The demonstration programs attracted increased political attention during the early 1990s, when a policy environment desirous of "paperless" government emerged in Washington. Congress endorsed EBT as an alternative to paper food stamps in 1990,[2] and Vice President Al Gore's National Performance Review backed EBT and developed a national implementation plan.[3]

The most important step in EBT's development came with the 1996 passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). This congressional act required states to deliver food stamps electronically by October 1, 2002.[4] Members of both parties viewed EBT as a way of reducing the FSP's administrative costs and fraud losses. As an example of EBT's potential, a 1996 cost-benefit analysis predicted that it would produce annual federal savings of $195 million by the year 2000.[5]

Although PRWORA required states to develop EBT for food stamps, many states chose to develop systems that would permit the delivery of additional federal and state social benefits. Like the federal government, states hoped to save money through the lower costs theoretically associated with electronic systems. Optimistic estimates surrounded the development of EBT systems. New York, for instance, originally estimated that its combined food stamp and cash benefit issuance costs would fall from $6 per month per client to $2.60.[6] Other states projected similar reductions. Since PRWORA's passage, states have been implementing EBT systems to meet the deadline.

| Table 1: EBT Development Timeline | |
|---|---|
| **Year** | **Event** |
| 1983 | USDA begins first EBT pilot program in Reading, Pennsylvania. |
| 1988 | EBT pilots begin in Albuquerque, New Mexico; Ramsey County, Minnesota; and the Park Circle District of Baltimore, Maryland. |
| 1990 | Leland Domestic Hunger Relief Act amends Food Stamp Act of 1977 and allows EBT as an alternative to paper food stamps. |
| | FNS develops EBT regulations. The basic framework remains in effect. |
| 1993 | Maryland's EBT program expands statewide, making it the first statewide system in the country. |
| | National Performance Review endorses EBT. |
| 1994 | Federal Electronic Benefits Transfer Task Force releases national EBT implementation plan. |
| | First off-line EBT pilot begins in Dayton, Ohio. |
| 1996 | Congress passes Personal Responsibility and Work Opportunity Reconciliation Act, which mandates EBT for the Food Stamp Program. |
| 2000 | Congress passes EBT Interoperability and Portability Act. |
| 2001 (Summer) | 41 states have statewide EBT systems in place. |
| 2002 (October) | Deadline for states to implement EBT systems for the Food Stamp Program. |

**National Trends**

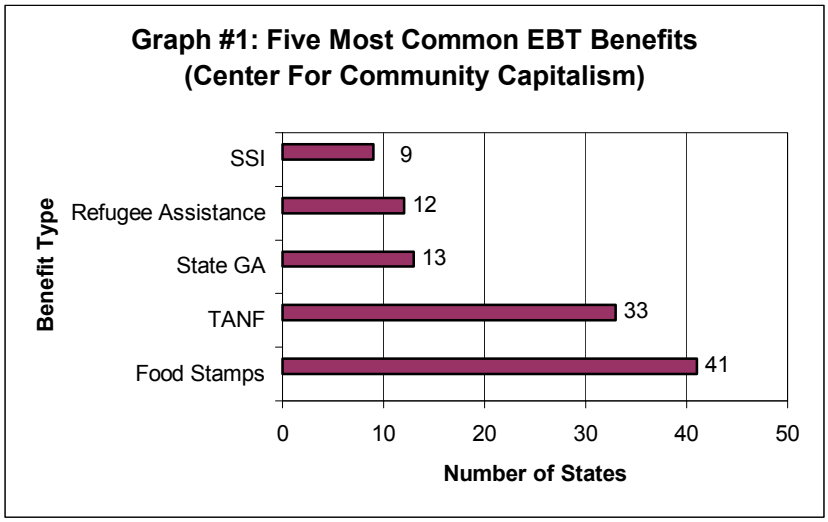
As of summer 2001, 39 states, the District of Columbia, and Puerto Rico (subsequently referred to as 41 states) had active statewide EBT systems. The remaining states were experimenting with pilot programs, negotiating contracts, or preparing to activate full systems. Table 2 summarizes where each state stands. Most of the attention in this working paper will focus on those with

| Table 2: EBT Status by State | |
|---|---|
| **Status** | **State** |
| Statewide Program Implemented | AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, ID, IL, KS, KY, LA, MD, MA, MI, MN, MO, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, PR, RI, SC, SD, TN, TX, UT, VT, WA, WI, WY |
| Pilot Programs Operating | CA, IN, IA, VA |
| Negotiating Contracts | DE, Guam, ME, MT, Virgin Islands, WV |
| Preparing to Go Active | NE, NV |

statewide programs already in place.

***Benefits Delivered via EBT***

States use EBT to deliver food stamp and non-food stamp benefits, though PRWORA only requires them to provide electronic food stamps. All 41 states with statewide systems deliver food stamps as required, and 80 percent of national FSP benefits now are delivered electronically.[7] Furthermore, 33 of the 41 states also deliver TANF benefits electronically. Other popular benefits being delivered include general assistance benefits (13 states), refugee assistance (12 states), and Supplemental Security Insurance (SSI) (9 states).[8] Additionally, some states are experimenting with delivering Women, Infants, and Children (WIC) benefits, child support, health insurance, childcare payments, and welfare-to-work initiatives. Graph 1 shows the frequency of offered benefits. Note that the typical state offers food stamps, TANF, and one other benefit. Non-food stamp benefits like TANF normally are delivered through ATM or POS machines, though some states experimenting with WIC benefits have been moving toward smart cards.




***Direct Deposit and EBT***

As mentioned earlier, EBT is an outgrowth of a broader movement that seeks to use technological advances in the financial world to deliver government benefits in a more cost-effective way. A related technology is Electronic Funds Transfer (EFT), commonly known as direct deposit, through which recipients may choose to have their government benefits deposited directly into a bank account. The difference between EFT and EBT systems is that an individual must have a bank account in order to use EFT, while EBT systems use bank structures like ATMs as conduits between benefit recipients and a state-maintained account.[9] Unlike EBT, EFT connects low-income people directly to the financial mainstream.

Research suggests that bank accounts offer numerous benefits to low-income citizens. Opening bank accounts allows people to save money, earn interest, build credit histories, and move toward homeownership. Connecting low-income people to the banking system also provides banks with the market information needed to develop products tailored to the needs of the newly banked.[10] Because of these advantages, many states have incorporated EFT options into their EBT systems. EFT options exist within 18 EBT programs, though little is known about the usage of this option. Forty-three percent of the states with EFT options are in the Northeast and Midwest, and two states, Connecticut and Florida, have developed direct deposit options with particularly innovative elements.

Connecticut offers all recipients of cash assistance the option of establishing an EFT account that allows four free ATM withdrawals a month. The state also offers an enhanced direct deposit option that provides other features.[11] Florida, meanwhile, has partnered with First Union Bank to create a direct deposit account that allows three free transactions per month, unlimited deposits, unrestricted POS access, privacy safeguards, one free replacement card per year, and a monthly service fee capped at $3.[12]

In spite of its potential, EFT has not reached many of those who could benefit from the establishment of bank accounts. Some states do not allow the option, while participating states have encountered difficulties spreading the word. This may be due in part to the limited outreach and training methods used in many states, but it also may be due to the fact that there is less of an economic incentive for EBT vendors to promote direct deposit. Under many state EBT contracts, vendors receive a lower fee for clients who receive cash benefits via direct deposit than for those who receive benefits through EBT. Also, financial institutions have little incentive to encourage the creation of low-balance, high-activity accounts.

Another form of EFT offered in some states is electronic bill payment. In New Hampshire, recipients may authorize up to three free electronic fund transfers from their state-maintained benefit account to vendors approved by the state.[13] Connecticut offers a similar option, while in the District of Columbia, benefit recipients have the option of paying their utility bills electronically through POS machines installed in public housing complexes.[14]

## The Mechanics of EBT

Though many states deliver multiple benefits through EBT systems, they only are required to provide food stamps. Since EBT systems operate differently depending on the benefits being delivered, an understanding of EBT requires basic familiarity with the two main benefit types: food stamp and non-food stamp.

### *Benefit Type #1: Food Stamps*

The FSP is a means-tested federal entitlement that helps low-income Americans buy food. Qualifying individuals and families receive income supplements that may be used to purchase nutritious food at authorized retail establishments. Seventeen million people received assistance at a total cost to the federal government of approximately $17 billion during fiscal year 2000: Approximately $15 billion in benefits, and $2 billion for the federal government's half of the administrative costs.[15] Clearly, any technology capable of reducing costs could result in tremendous savings.

### *Benefit Type #2: Non-Food Stamp Benefits*

An array of social programs, ranging from TANF to home energy assistance, is delivered via EBT. Some of these programs are funded and administered entirely by the federal government (i.e., Supplemental Security Income or SSI), others are federally funded and state administered (i.e., TANF), and still others are financed solely by states (i.e., General Assistance).[16] For the purpose of EBT, the most important non-food stamp benefit is TANF.

Created in 1996 as part of PRWORA, TANF replaced Aid to Families with Dependent Children (AFDC). Instead of providing low-income citizens with cash entitlements, TANF provides states with $16.8 billion in block grants that may be used in any manner consistent with program goals.[17] While the federal government contributes the bulk of TANF's funding, states also are expected to contribute and are responsible for daily administration. Again, finding ways to reduce costs is of interest to the states and federal government.

***How EBT Delivers Food Stamp Benefits***

EBT is an electronic payment system that allows food stamp benefit recipients to pay for goods by transferring funds from a government-maintained account to a retailer's bank account. In most states that deliver food stamp benefits via EBT, benefit recipients receive a plastic card with a magnetic stripe, resembling a debit card (Figure 1), and a personal identification number (PIN). When benefit recipients purchase food, they inform the clerk that they wish to pay with EBT; swipe their cards at a POS terminal located at the cash register and enter their PIN.

Figure 1: Sample EBT Cards–Dakotas, Maryland, and Indiana


The clerk presses a button on the cash register, which sends the transaction via phone lines (maintained by the EBT vendor or a third-party processor) to the EBT vendor's processing center. Computers at the processing center check whether the requested transaction has originated from a valid terminal, involves an active case (based on records regularly sent by the state), uses a valid PIN, and does not exceed the account balance. If those conditions are met, the computer authorizes the transaction and sends approval to the cash register. The clerk completes the transaction, and the benefit recipient leaves with groceries.[18] Note that USDA regulations prohibit merchants from assessing surcharges on electronic food stamp purchases.

At the end of the EBT vendor's business day, the vendor's computers total all food stamp sales each authorized merchant made via EBT and transmits that information through the Automated Clearinghouse Network (ACH) to a Federal Reserve Bank. The EBT vendor electronically informs the state how much money needs to be available to honor that day's EBT transactions. The state's computers request the funds from the USDA, which sends the funds electronically through the Treasury Department to the state's bank account. The state transmits the funds to the EBT's vendor bank account. Once funds are in place, the money is transferred from the vendor's account through a Federal Reserve Bank and deposited in each merchant's financial institution. At this point, the merchant's transactions for the day are settled. Funds will be available in two or three business days, depending on the policies of the merchant's bank. The EBT vendor also daily transmits transaction account information to the state, so the account records of each benefit recipient can be balanced.[19]

***How EBT Works to Deliver Non-Food Stamp Benefits***

In states where benefits besides food stamps are delivered through EBT, recipients access their food stamps in the manner described above. To draw cash benefits like TANF, recipients use the same card and PIN at either POS machines or ATMs. Many states that provide non-food stamp benefits permit recipients to access their cash benefits at POS machines located in food stores and receive cash from the clerk. Cash transactions are processed in the same manner as food stamp transactions, though the transactions cannot be processed simultaneously.[20] If recipients wish to tap both benefit streams, they must inform the clerk, swipe their EBT card and enter their PIN twice. Before processing each transaction, the clerk presses a different key to properly route the transaction. At the end of the EBT vendor's business day, non-food stamp transactions are settled in a manner similar to the one used to settle food stamp transactions. Note that many states permit merchants to assess vendor fees or surcharges on non-food stamp benefits.

***On-Line versus Off-Line EBT Technologies***

The procedures described above apply to on-line EBT technology, which is used by all but two states with active statewide systems. On-line systems function in a manner similar to commercial debit or credit cards. When the EBT card is swiped through a POS machine, the information contained in the magnetic stripe—normally the benefit recipient's name, EBT account number, and PIN—and information regarding the requested transaction are transmitted via telephone lines to the EBT vendor's processing center for authorization. This need for a live telecommunications link is what constitutes "on-line" technology.[21]

Ohio and Wyoming use off-line systems. Off-line systems depend on smart cards, which are plastic cards that resemble debit cards in size but contain a microchip. The microchip stores all the information needed to complete an EBT transaction, including account balances, directly on the EBT card. When a benefit recipient uses the smart card to purchase groceries, the card is inserted in a smart card reader attached to the cash register. Since the smart card contains all of the required information, there is no need for an on-line connection to the EBT vendor's processing center until the end of the business day when the merchant electronically transmits information pertaining to completed EBT transactions. The vendor settles the transactions and creates a shadow account for each benefit recipient, which may be used to restore benefits if an EBT card becomes lost or damaged.[22]

**EBT's Design, Procurement Models, and Vendors**

When EBT was proposed, the USDA recognized that building the EBT infrastructure from scratch would be cost prohibitive. A feasibility study estimated it would take $233 million to $291 million, with terminal installation being the most expensive part.[23] The USDA thought that if EBT could be integrated with existing commercial processing systems, the costs would fall to an affordable level. Unfortunately, such integration proved more difficult than expected since EBT, unlike debit card systems, required the flexibility to deliver multiple benefits subject to various government regulations.[24] The complexities involved in developing such systems have not only led states to contract with private vendors, but also shaped how EBT systems operate. Consequently, a familiarity with EBT's procurement models, pricing plans, and market actors is essential for understanding the technology.

***Procurement Models***

States normally use one of three procurement models to obtain EBT systems.[25] Each model involves a prime vendor who manages the overall EBT system and subcontractors who specialize in functional areas like card distribution. Since the procurement method selected influences how a state's EBT system operates, each method briefly is discussed. Table 2 summarizes the procurement methods used by the 41 states with statewide EBT programs.

*Stand-Alone Procurement*

In this method, an individual state purchases an EBT system on its own. The advantage of a stand-alone procurement, used by 16 states, is that it allows a state to negotiate a contract specifically tailored to its needs. States receive design flexibility and can experiment with different benefits and technologies.[26] Stand-alone procurements tend to work well for larger states with high caseloads. Smaller states have encountered difficulties with stand-alone procurements. Delaware's attempt in 1999 to purchase a stand-alone system received no bids.[27]

*Coalition Procurements*

To achieve economies of scale, 23 states have joined purchasing coalitions. The coalitions purchase the same services obtained by stand-alone states, but negotiate EBT contracts jointly. While North Dakota and South Dakota request proposals together, other coalitions depend on a lead state like New York to negotiate terms with a vendor, who agrees to give coalition members the opportunity to negotiate for services within the framework established by the lead state.[28] Depending on the size of the lead state, member states may receive prices they would not otherwise receive. A downside of the coalition arrangement is that states have less freedom to experiment with new programs, which is why Utah chose not to join a coalition.[29] The three coalitions are the Southern Alliance of States (SAS), the Western States EBT Alliance (WSEA), and the Northeast Coalition of States (NCS).

**Table 3: Procurement Method by State (Center for Community Capitalism)**

| | |
|---|---|
| Stand-Alone Procurement | DC, IL, KS, LA, MD, MI, MN, NJ, NM, OH, OK, OR, PA, PR, UT, WI |
| Coalition Procurement | |
| *Northeast Coalition* | CT, MA, NH, NY, RI, VT |
| *Southern Coalition* | AL, AR, FL, GA, KY, MO, NC, SC, TN |
| *Western Coalition* | AK, AZ, CO, HI, ID, WA |
| *Dakotas* | ND, SD |
| State Prime Contractor | TX, WY |

*State as Prime Contractor*

Under the previous models, states negotiate with a prime contractor, and, as a result, are constrained by the services and terms the contractor offers. This sometimes limits design flexibility and benefits that can be delivered through EBT. Two states, Wyoming and Texas, therefore have opted to serve as their own prime contractors. The social service departments of these states negotiate directly with subcontractors to obtain the functions essential to an EBT system.[30]

***Pricing Model***

The dominant pricing model used in EBT systems has been the cost per case month (CPCM) model in which a state is charged a fee for every active case in the system in a month.[31] States and vendors negotiate the specifics of the model (e.g., what constitutes an "active case"), but irrespective of the details, the pricing model is extremely sensitive to changes in caseload levels. If those levels fall rapidly, as has happened since the passage of PRWORA, vendors may find themselves unable to cover their costs and recoup their investments. In fact, national participation in the FSP decreased by 33 percent between federal fiscal years 1996 and 2001.[32] Such decreases in caseload may lead to poorer service and higher prices, and drops in volume and profitability may dissuade other vendors from entering the EBT market.

***Market Evolution and Actors***

When EBT expanded nationally, many financial institutions and computer processing companies expressed an interest in the market. Early players in the EBT market included Mellon Bank, First Union, NationsBank, IBM, Unisys, First Security, GM Group, and Zions Bank.[33]

As time passed, many of the firms encountered difficulties. Not only did it prove more complicated than expected to deliver electronic food stamps, but also many firms were unsure how to set an appropriate CPCM. The pricing issue was especially vexing because EBT required extensive initial capital investments that would be recovered through the CPCM. Additionally, many smaller firms capable of providing elements of EBT were unable to compete for EBT contracts since states purchased all EBT services from a prime vendor, who in turn contracted with other firms for specialized services. Unless a specialized firm managed to subcontract with a larger vendor, the firm was excluded from the EBT market. As a result of these factors, the EBT market gradually thinned.[34]

A few successful firms eventually emerged in the EBT market, with the big winner being Citicorp Services, Inc. (CSI). CSI managed to capture the bulk of the market by designing a standard EBT platform that could be deployed in any state. CSI also benefited by having access to the extensive commercial-processing network maintained by its parent, Citigroup.[35] Like CSI, two other firms, e-Funds and Transactive Corporation, developed standard EBT platforms and obtained state contracts. Lockheed Martin IMS enjoyed some success in the EBT market, though it lacked the full processing systems possessed by its competitors.

The passage of time further thinned the market as states' benefits caseloads declined. Transactive, a G-Tech subsidiary, held contracts in Illinois and Texas but encountered financial troubles. Under Transactive's contract with the state of Texas, the company earned $2 per food stamp client per month and $0.97 per TANF client per month.[36] When the contract began, Texas had a total caseload of 1.2 million, but the caseload eventually fell by 50 percent, causing Transactive to incur large losses. Transactive attempted to sell its EBT assets to CSI for $11.5 million, but the U. S. Justice Department successfully blocked the sale on antitrust grounds.[37] Transactive then left the EBT market,[38] but not before granting GM Group the right to use its equipment to provide EBT services in Puerto Rico.[39]

Meanwhile, Lockheed Martin IMS and e-Funds began to partner with CSI on numerous state contracts. CSI normally served as the prime vendor, while the other firms acted as

subcontractors. For Lockheed, subcontracting was the only way to remain in the EBT business since the firm lacked the processing systems owned by CSI and e-Funds. This limited ability to compete led Lockheed in July 2001 to sell its EBT business to Affiliated Computer Services, Inc. (ACS), a firm that had recently developed EBT processing equipment.[40]

| Table 4: Prime Contractor by State (Center for Community Capitalism) | |
|---|---|
| Citicorp Services, Inc. | AK, AL, AZ, AR, CO, CT, FL, GA, HI, ID, KY, MD, MA, MI, MN, MO, NH, NM, NY, NC, ND, OH, PA, RI, SC, SD, TN, VT, WA, WI |
| e-Funds | KS, LA, NJ, OR, UT |
| Lockheed Martin/ACS | DC, OK |
| Transactive | IL |
| GM Group | PR |
| State Itself | TX, WY |

Today CSI, e-Funds, and ACS are the three significant players in the EBT market, with CSI leading the industry. As Table 3 indicates, CSI holds prime contracts in 30 of the 41 states with statewide systems and subcontracts in two additional states. CSI also has negotiated noncompete agreements with e-Funds, thereby insuring that e-Funds will not bid against CSI when certain contracts are rebid.[41] These developments have led to a market with limited competition. For example, when California solicited bids in 2001, it received only one, from CSI.[42]

While CSI occupies a prominent place in the EBT industry, other firms recently have attempted to enter. ACS purchased Lockheed's EBT business and may compete against CSI in the near future when a series of state contracts come up for renewal. Another new market entry occurred when TRW secured Idaho's contract.[43] Moreover, the development of off-line EBT projects for the delivery of WIC has attracted vendors like Stored Value Systems—which serves as a subcontractor to CSI in Ohio[44] —into the market and may create niches for firms that specialize in off-line systems. Such developments may signal a change in the EBT market.

**Financial Impacts on the Federal Government and the States**

The federal government initially viewed EBT as a way of lowering the administrative costs and fraud losses associated with FSP. It also was thought that, by extension, states would save money. Yet it is unclear whether these savings have materialized. The following sections consider EBT's impact on administrative costs in both food stamp and non-food stamp benefit programs before turning to the issue of fraud reduction, particularly within FSP.

***Impact #1: Administrative Cost Reductions***

EBT's overall impact on administrative costs appears mixed, though the effects are difficult to gauge since accurate figures are unavailable. The Center for Community Capitalism's 2001 survey of statewide EBT programs revealed that many states reported cost savings, but the administrators who completed the survey provided few figures. Moreover, the numbers are difficult to compare since states deliver different benefits via EBT and measure savings differently. Arizona, for instance, reported general cost reductions of $150,000 to $300,000,[45] while Texas reported combined federal and state savings of $126 million as of 2001.[46] Some states like Alaska claim that EBT systems cost more than the paper-based system.[47] Similarly,

Nebraska, which activated its EBT system in the autumn of 2001, estimated that EBT would cost more than paper food stamps. Nebraska calculated that EBT would raise administrative costs from $2.10 to $3.20 per recipient per month, and total annual costs would rise from $880,000 to $1.3 million.[48] Such contradictory reports suggest that EBT has not achieved the across-the-board savings originally envisioned by its supporters, even though some states have saved.

Despite these data limitations, it is possible to offer some insights into EBT's impact on the administrative costs associated with food stamp and non-food stamp benefits. The USDA's 1994 evaluation of Maryland's statewide EBT program—used to deliver food stamps, AFDC, and three other non-food stamp programs—found that the overall CPCM of issuing all benefits electronically ($3.85) was slightly lower than the comparable paper ($3.89). Annualized, EBT yielded $120,000 (1993 dollars) in combined savings.[49]

When considering program costs in EBT, it is necessary to consider the allocation of savings in addition to total savings. In Maryland, the administrative costs associated with authorizing, delivering, redeeming, monitoring, and managing food stamps decreased, but the administrative costs associated with non-food stamp benefits rose. The ultimate result was that the increased cost of delivering non-food stamp benefits electronically nearly offset the FSP savings.[50]

It is not surprising that EBT raised the delivery costs of non-food stamp benefits. Prior to EBT, non-food stamp benefits were delivered via paper checks—a relatively inexpensive payment method for the government, though not necessarily for benefit recipients if they incurred check-cashing fees. Switching to EBT for non-food stamp benefits replaced a low-cost, paper-based delivery mechanism with a more expensive one. EBT processes every transaction through ATM or POS networks, which charge for their services. These fees represent a cost that did not exist prior to EBT, [51] and the incidence of these costs has become a contentious issue.

Meanwhile, food stamp savings in Maryland resulted from a variety of factors. First, EBT lowered the costs associated with approving people for food stamp benefits and establishing their benefit accounts by reducing the time and labor needed to complete these tasks. In addition, by eliminating paper coupons, the system also eliminated all of the costs associated with printing, handling, redeeming, and destroying paper food stamps. Second, the processing costs associated with electronic food stamp benefits were lower than those associated with non-food stamp benefits since food stamp benefits were delivered through POS systems, not ATMs. The size of ATM fees, coupled with the higher number of ATM transactions, made ATM transactions more expensive than POS transactions. Third, electronic food stamps reduced fraud.[52]

The difference in savings between food stamp and non-food stamp benefits was not unanticipated. A 1990 USDA evaluation predicted that monthly operating costs for a national EBT system would exceed the monthly operating costs of the existing paper-based system, though the increase would be partly offset by fraud reductions and improved public perception of program integrity.[53] The potentially higher cost became an issue when Maryland was planning its EBT program during the early 1990s. The federal Department of Health and Human Services (DHHS), which oversaw AFDC (now TANF), recognized that AFDC costs could rise under EBT and leave the agency with a financial liability, but the USDA, which already had run and evaluated EBT pilots for food stamps in several jurisdictions, expected to save money. These

competing interests led DHHS, USDA, and Maryland to negotiate the EBT Single Administrative Grant (EBTSAG). This document required Maryland's planned EBT project to be cost-neutral to the federal government. Neither USDA nor DHHS would pay more for EBT than for paper benefits; if EBT cost more, then Maryland would absorb the difference. In return, USDA and DHHS agreed to combine resources and pay half of the system's administrative costs. EBTSAG was significant because it established the concept of cost neutrality, which has evolved into a cornerstone of federal EBT policy.[54]

The USDA's evaluation of Maryland's EBT program found that EBTSAG influenced the division of costs between the federal government and the state. After accounting for federal reimbursements, the evaluation found that the federal government saved money under EBT while the state government spent more. This happened because the federal government eliminated the costs associated with printing paper coupons, while the state incurred new costs dealing with the EBT vendor.[55]

In subsequent years, external factors also have influenced EBT's costs. Most notably, the federal Telecommunications Act of 1996 allowed telephone companies to charge telephone call centers $0.29 for calls originating from pay phones.[56] Since EBT vendors process all transactions and provide all customer service functions through telephone centers, EBT costs increased, and vendors passed those costs on to the states. Arizona, for instance, estimates that this change alone raised its EBT costs by $12,000 per month.[57]

***Impact #2: Impact on Fraud***

EBT has enriched the ability of the government to detect fraud in both food stamp and non-food stamp programs, though fraud always has been a more pressing matter within the FSP because benefits are restricted to the purchase of certain goods. Since the government does not restrict the use of non-food stamp benefits, this form of fraud was never an issue. This section of the working paper therefore focuses primarily on EBT's impact on food stamp fraud, with some attention given to non-food stamp benefits.

***Illegal Trafficking of Food Stamp Benefits***

Benefit trafficking, which occurs when recipients sell their benefits at a discounted rate to retailers in exchange for cash, is the most significant form of food stamp fraud. Fraudulent retailers typically pay a recipient $0.50 for every $1.00 in benefits and then redeem the food stamps at their face value.[58] The USDA estimated that the trafficking rate between 1996 and 1998 equaled 3.5 percent of benefits issued.[59]

Responsibility for detecting trafficking is divided between the FNS and the states. The FNS is charged with monitoring retailers for program compliance, while states attempt to detect fraud among benefit recipients.[60] Since trafficking involves both retailers and benefit recipients, the FNS and the states need to coordinate their efforts. When the FNS investigates a retailer, it normally provides the appropriate state with a list of benefit recipients suspected of trafficking, and the state is supposed to follow up on the leads.[61] Unfortunately, this two-tiered approach historically has not worked well because proving fraud against benefit recipients and retailers has required the use of lengthy and costly undercover investigations and e FNS has lacked the ability to enforce fines. The General Accounting Office (GAO) found that the USDA collected only 13

percent of assessed fines between 1993 and 1998 and deemed 55 percent of the total fines, or $49 million, uncollectible.[62]

EBT has the potential to improve this situation. Between 1993 and 1998, the trafficking rate fell half a percentage point, a decline that both the USDA and GAO have attributed partly to EBT.[63] EBT systems, however, are not immune to trafficking. Merchants can pay benefit recipients a discounted rate for the electronic food stamps, run the recipient's card through a POS terminal, enter the recipient's PIN, and receive the full benefit amount. An example of this occurred in Portland, Oregon, when the owners of a small grocery used trafficked EBT food stamp benefits to redeem an amount $250,000 greater than the store's gross food sales.[64]

Nevertheless, EBT renders trafficking easier to detect because electronic transactions generate digital records that can be analyzed with computers. Instead of conducting lengthy and expensive undercover operations, investigators are allowed under PRWORA to mine transaction records for patterns that indicate illegal activity and use that evidence against violators.[65] This happened in Louisiana, where investigators matched EBT transaction records to state sales tax records to apprehend a ring of grocery stores responsible for trafficking $20 million in food stamp benefits and transferring the proceeds to the Mideast. What caught the attention of investigators was the fact that, in certain stores, EBT transactions accounted for 52 percent to 115 percent of the store's total food sales, while the state average for retailers was 9 percent.[66] A similar example occurred in New Jersey, where investigators found a store redeeming $100 in food stamps every six minutes.[67]

***Other Forms of Food Stamp Fraud and Non-Food Stamp Fraud***

Though trafficking is a form of fraud unique to food stamps, it is not the only form of fraud. The U. S. Secret Service, which polices fraud in EBT systems, has observed, "EBT is open to a wide variety of fraud, including multiple false applications for benefits, counterfeiting of the EBT card, and trafficking of noncash benefits for cash or contraband."[68]

Mail fraud also affects food stamp and non-food stamp programs. However, by reducing the need to mail benefits, EBT has helped to reduce the theft of those benefits. According to the Center for Community Capitalism's survey of EBT programs, many states claim to have eliminated mail fraud.[69]

Another type of fraud occurs when people use false names to apply for and receive multiple sets of benefits. EBT currently is unable to detect this type of fraud, though technological modifications eventually could allow EBT to do so.

**Consumer Effects**

EBT systems are designed to deliver social welfare benefits to qualifying individuals, and the experiences these recipients have with the system need to be considered. Gauging effects on a national level is a complicated undertaking since EBT programs and the accompanying consumer issues differ among states. Concerns in a state that delivers both food stamp and non-food stamp benefits may not apply to states that only provide food stamps.[70] Nevertheless, a

review of the available literature suggests that nine significant consumer issues pertaining to EBT have arisen:

- Surcharges and fees
- Recipient training
- Customer service
- Technological failures
- Consumer protection
- Interoperability
- Privacy
- Card replacement
- Access to farmers' markets

***Overall Consumer Satisfaction with EBT***

It is difficult to speak definitively about the satisfaction of EBT recipients because EBT programs differ among states and no comprehensive studies have been attempted. The existing literature consists of studies of particular states, and many of these analyses are qualitative surveys of EBT administrators and advocates for benefit recipients that ask these stakeholders what they understand EBT's impacts on recipients to be. Nevertheless, it is possible to offer some general insights into consumer satisfaction with EBT.

Overall, benefit recipients appear satisfied with EBT, particularly the food stamp aspect of the program. A survey of advocates and EBT administrators in ten states and two pilot projects in California counties revealed that most respondents generally preferred EBT to paper food stamps.[71] This observation is supported by various state-specific studies of EBT recipients. The earliest comprehensive study of a statewide EBT program occurred in Maryland (which delivers both food stamp and non-food stamp benefits) and found that an overwhelming majority of benefit recipients preferred EBT.[72] Reasons for the preference included greater benefit security, enhanced convenience, and reduced social stigma, because using paper food stamps at the store clearly identified the user as a benefit recipient. The continued validity of these results is hindered by the fact that they are dated and the way in which non-food stamp benefits are delivered has changed. At the time of the evaluation, Maryland allowed non-food stamp benefit recipients to use ATMs for free; this is no longer the case.

The general findings of the Maryland evaluation received support from the North Carolina Financial Services Survey, a study of past and present North Carolina welfare recipients conducted in 2001 by the Center for Community Capitalism. Respondents were asked a series of questions pertaining to their experiences with the EBT system (food stamp only). Sixty percent of respondents claimed to have only positive reactions to EBT, and less than 1 percent claimed to have overwhelmingly negative attitudes.[73] Consistent with the Maryland evaluation, the most commonly cited reasons for positive reactions were the system's ease and reliability (69 percent) and security (15 percent).[74]

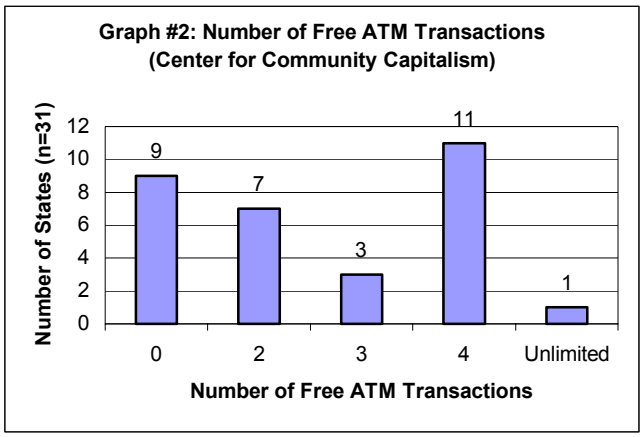
Another positive aspect of EBT is that it may have decreased the participation costs of benefit recipients. Under paper-based food stamps, recipients needed to redeem their benefits at banks or check-cashing establishments, a process that often involved such out-of-pocket expenses as

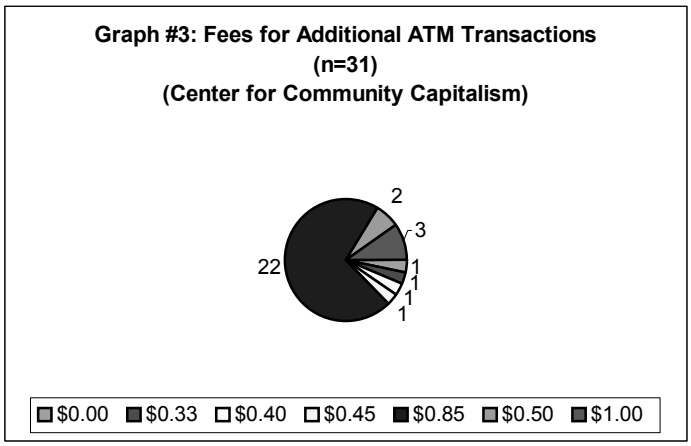
transportation and childcare. Since the need to redeem benefits in this manner is not part of EBT, these out-of-pocket costs theoretically were eliminated.

Such findings support the claim that benefit recipients generally are satisfied with EBT. This does not mean that the system is perfect. Certain problem areas, particularly with the delivery of non-food stamp benefits, need to be understood and addressed if EBT is to realize its goals.

***Issue #1: Vendor Fees and Surcharges***

This is perhaps the most contentious issue in EBT. Though USDA regulations prohibit merchants from charging fees and surcharges for purchases made with electronic food stamps,[75] these regulations do not apply to non-food stamp benefits like TANF. With the exception of New Mexico, all states that deliver cash benefits via EBT allow recipient access to cash to be limited. Recipients are allowed a certain number of free cash transactions per month (between zero and four, with four being the most common). After the limit is reached, the EBT vendor may assess a fee on subsequent transactions (see Graph 2). The typical fee is $0.85 (see Graph 3). Additionally, recipients may incur surcharges, ranging from $1.00 to $2.00 in some states, when they access cash at ATM or POS machines.[76]




*Understanding the Fee Structure*

Before further exploring the link between EBT and fees, it is important to discuss the three main types of fees assessed at ATMs. Shortly after banks began deploying ATM machines, they realized they could lower transaction costs by increasing transaction volumes. A simple way to accomplish this was to link their machines to the ATMs operated by other banks.[77] This resulted in the creation of ATM networks like Cirrus and Plus. When a person with an account at one bank uses a network ATM owned by another bank, the person's bank is charged an *interchange fee*, which passes along the cost incurred by the ATM's owner to execute the transaction over the network. To compensate for the interchange fee, the person's home bank may levy a *foreign fee* on the consumer. Since 1996 network policies also have allowed banks and other ATM owners to assess *direct surcharges* on noncustomers. This allows banks and ATM owners to make serving noncustomers a discrete profit center.

Such flat fees can be significant on small transactions like those typically conducted by benefit recipients. For instance, typical fees for a $25 transaction could easily be 8 percent, if the ATM

owner charges a $1 surcharge and the home bank a $1 foreign fee. To minimize the fees' impact, consumers could withdraw higher sums of money (e.g., $100 instead of $25), but the trade-off is the increased security risk involved with carrying cash. From the consumer's standpoint, ATM fees, particularly surcharges, are unpopular ways of making people pay for their money. Banks view the charges as valid ways of passing along costs, generating revenues, and financing the placement of off-site ATMs. However, ATM fees raise equity concerns because minority neighborhoods are more likely to have ATMs that charge surcharges than nonminority areas.[78]

*ATM Fees and EBT: New York City As An Example*

A 2001 report by the New York State Comptroller noted that prior to EBT, the state's benefit recipients received their food stamp and non-food stamp benefits twice a month at participating check cashers. The check cashers received a fee from the state in return for this service. Under New York's EBT contract with CSI, cash recipients receive four free transactions per month at Citibank ATMs. If recipients make more than four transactions, they pay $0.85 per transaction. Moreover, if individuals use a non-Citibank ATM to access their welfare benefits, they may be assessed a direct surcharge of $1 to $2, depending on the ATM's owner.[79] A direct surcharge also may be assessed if recipients receive cash back from POS machines.

Additionally, access to Citibank ATMs was limited for many New Yorkers. At one time, benefit recipients residing in the three poorest zip codes in New York City had access to a total of six free ATMs.[80] This, coupled with other developments, led the New York State Attorney General to sue CSI. As part of the settlement, CSI pledged to place an additional 149 free ATM machines in low-income neighborhoods.[81] Nevertheless, the combination of fees and limited access to free ATMs has led to costs for benefit recipients. The State Comptroller estimates that recipients in New York City paid $647,087 and $700,151 in fees during January and February 2001, respectively.[82] Under the previous system, many of these fees would not have been incurred.

*State Responses to Fees and Surcharges*

States have not been blind to the consumer impact of vendor fees and surcharges and are working to mitigate their effect. Massachusetts, for instance, prohibits fees and surcharges at POS machines but permits surcharges at ATM machines. However, the state has persuaded banks to waive ATM surcharges for EBT recipients.[83] Kentucky also has tried to persuade the private market to provide free EBT access; it convinced Dairy Mart Convenience Stores to modify their surcharge-free ATMs to accept EBT.[84] This approach may provide retailers with a competitive advantage.[85]

Other states have chosen a more regulatory approach. Minnesota has capped the total amount of fees and surcharges that a recipient may pay at $10 per month.[86] Illinois has tried to tackle both fees and balance inquiries (discussed in next section) by granting recipients four free balance inquiries each month in addition to four free withdrawals.[87] All subsequent balance inquiries cost $0.50 instead of the $1.00 charged for cash access. While such measures no doubt help benefit recipients, these strategies—both the market-based and government-based ones—ignore the key matter: Under EBT, benefit recipients pay "fees that most regular customers do not have to pay—fees that are deducted from their welfare benefits."[88]

*Balance Inquiries*

Opinion is divided over whether or not benefit recipients should be permitted to use EBT to check their balances. Disagreement also has emerged over whether or not recipients should be charged for balance inquiries. From a consumer standpoint, the ability to check balances is important because it helps people manage their finances, but vendors are concerned that benefit recipients will check their balances too often, increasing operating costs.

States have responded to the balance inquiry issue in a scattered fashion. Six states prohibit balance inquiries, while 14 allow unlimited inquiries. Five other states count balance inquiries toward a client's monthly allowance of free transactions. In some states where balance inquiries are allowed, the vendor fees and surcharges described above may apply to those inquiries. Additionally, all states note that benefit recipients may obtain balance information by calling the EBT system's toll-free service line and speaking to a customer service representative; but as will be discussed later, questions have surfaced regarding the service lines. Access to balance information raises equity questions, too, since non-EBT citizens easily may check their bank balances at ATMs, and, prior to EBT, benefit recipients always knew their balances because they could see how much cash they had left.

***Issue #2: Recipient Training***

EBT represents a fundamental shift in how food stamps work, so the USDA requires states to provide recipients with hands-on training in EBT.[89] Recipients should be taught how to use the system, how to report lost or stolen cards, how to recognize participating stores, and how to protect their rights.[90] At least 27 states have received USDA waivers and use mailings to teach current benefit recipients who are switching to EBT.[91] New recipients who obtain in-person training normally receive it from a caseworker, not the vendor, and the "typical training programs include watching a video, practicing on a mock terminal, and asking questions of caseworkers."[92]

Many advocates question the effectiveness of EBT training. Mailings may be ineffective when recipients have low literacy levels or limited proficiency in English, and the availability and quality of in-person training varies widely. Training videos reportedly are "too short and do not contain enough information on direct deposit options and other low-cost bank accounts."[93] Such training methods may undermine EBT's effectiveness.

Additionally, studies have found training coverage to be incomplete. For example, only 10 percent of New York City's recipients received in-person training at conversion,[94] while in North Carolina about half of each county's recipients received training.[95]

***Issue #3: Customer Service***

All EBT states require vendors to provide customer service, normally through the combination of Audio Response Units (ARUs) and live service representatives accessible around the clock through a toll-free telephone line.[96] The ARUs and service representatives are supposed to assist clients with EBT problems like lost or stolen cards, and provide balance and transaction information. While no federal regulations apply to customer service standards, states have specified performance measures such as average answer time, maximum hold time, abandoned call rate, and number of callers who receive busy signals.[97]

Unfortunately, many of the performance standards go unmet. During the period of June 1999 through March 2000, CSI fulfilled none of the service standards required under its contract with the state of New York.[98] CSI's most serious failure pertained to hold time. While the contract requires CSI to return to 95 percent of the calls placed on hold within 30 seconds, CSI never met that requirement.[99] What makes these results significant is that CSI handles the ARU functions for all of its EBT contracts from the same three call centers, so if CSI is experiencing difficulties in New York, it likely is missing standards in other states.[100] This assumption is supported by a Consumers' Union study of EBT administrators and consumer advocates in ten states that found respondents "reported problems with telephone wait times and busy signals."[101]

The inability of vendors like CSI to meet service standards is related to EBT's economic structure. As discussed previously, EBT vendors have experienced financial difficulties and are trying to recoup their initial investments by lowering costs. Reducing customer service is a logical place for vendors to realize savings since the callers to the service line form a captive audience; they have no other place to take their business.[102] The result is that benefit recipients may receive poorer service, while states fail to receive contracted services.[103]

***Issue #4: Technological Reliability***

A downside of computerized systems is that they may crash. In 1999, for instance, a telephone line failed and caused the EBT systems in Georgia, Maryland, North Carolina, Florida, Pennsylvania, and the District of Columbia to fail simultaneously for 24 hours.[104] Such failures inconvenience merchants and recipients.

Federal regulations require all EBT systems to develop manual backup procedures for use during system failures.[105] In most states, if the EBT system is down when a benefit recipient is attempting to buy food, the merchant can call the EBT service line to request a transaction authorization. If the authorization is given, the merchant uses a paper voucher to complete the sale. When the system is repaired, the merchant uses the information on the voucher to settle the transaction. While this procedure sounds straightforward, merchants dislike it since it is difficult to reach the service line during technological failures, when a spike in call volumes taps the service systems' limited capacities, causing merchants to receive busy signals. This means that the merchants must keep calling back, tie up the store's customer flow, deny a sale, or issue an unauthorized voucher. This last option is risky since, under EBT, merchants are liable if it later is discovered that a recipient's account has insufficient funds.

Benefit recipients may suffer in a variety of ways when EBT systems fail. Some merchants may refuse to sell food during a system outage, thereby denying access to a necessity. This problem may be compounded if the system remains down for an extended time. Another technological problem that consumers confront is when the system incorrectly debits an account. For instance, a benefit recipient may purchase $20 in food but have $25 in benefits deducted, or a consumer may have a transaction denied yet still have benefits deducted. When such mistakes happen, the recipient can go to the social service office and request a correction or emergency food stamps, but this option is both time consuming and of limited use if the problem occurs after business hours. Moreover, once a problem comes to light, its resolution may take time.

An illustration of how a technological failure can affect benefit recipients occurred in 2001 when a computer error interfered with EBT transactions across the nation.[106] Some 6,000 transactions were garbled, and as a result, people were improperly denied benefits, had their benefits debited twice, or had their transactions denied but their benefits debited. When the problem came to light in Missouri, the Department of Social Services told one recipient that re-crediting the account could take up to 45 days and if food was an issue, the recipient should visit a food pantry. While this particular woman's experience is anecdotal, it demonstrates the potential impact that an EBT failure can have on a person's ability to obtain food.

*Disaster Responses*

A related question is what happens to benefit recipients during a natural disaster like a hurricane or tornado that either results in people being eligible for emergency food stamps or prevents existing recipients from using their benefits. The USDA requires states to develop disaster plans for food stamp delivery, but states enjoy a great deal of latitude in developing disaster responses. States like Florida and South Carolina depend on prepared EBT cards that contain a predetermined benefit level (e.g., $50) and can be issued immediately to people deemed eligible for disaster aid.[107] These cards rely upon the same on-line technology that supports the states' EBT systems. Other states like North Carolina require vendors to increase the production of cards during a disaster, though this approach hinges on a vendor's ability to produce enough cards and ship them quickly to the disaster area. These two responses were put to the test when Hurricane Floyd hit the Carolinas in 1999. North Carolina encountered difficulties when its vendor could not produce and ship enough cards to the afflicted counties, while South Carolina's procedure, coupled with the storm's smaller impact, allowed the state to respond in a better manner.[108]

For these two disaster responses to function, the EBT technology must remain in operation. If the technology fails, some states depend upon the manual voucher process described earlier, but questions surround the manual system's potential effectiveness during a large emergency. Also, since the USDA's regulations apply only to food stamp benefits, there exists no guarantee that non-food stamp benefits delivered via EBT will be available during a disaster. Some states have realized the potential impact that a disaster could have on EBT and have tried to be proactive, but progress has been limited, partly because EBT vendors have moved slowly.

***Issue #5: Consumer Protection***

A contentious issue that emerged when the federal government was drafting EBT regulations pertained to the extension of consumer protections to EBT. Section 904 of the Electronics Funds Transfer Act (known as Regulation E) requires banks to provide consumers with certain protections, including protection from unauthorized transactions. If a person loses a credit or debit card and reports the loss or theft to the issuer within 48 hours, Regulation E limits the person's liability to $50 in the event the card is used to make unauthorized purchases.

In spite of state opposition, the Federal Reserve decided in 1994 that Regulation E protections should apply to EBT programs. States with EBT systems were given three years to comply.[109] Besides extending the liability protection, the Federal Reserve also stated that unused benefits should be replaced in situations where an EBT card is lost or stolen. States were concerned because they believed these provisions would allow benefit recipients to transfer or traffic their

benefits illegally, claim their cards lost or stolen, and receive replacement benefits, leading ultimately to higher state costs. States not only would be rewarding illegal behavior, but they also would be powerless to stop such actions since, unlike banks, they could not cancel a person's account. Furthermore, states argued that applying Regulation E to EBT was unnecessary because federal regulations governing FSP and state administrative procedures regarding non-food stamp benefits already provided benefit recipients with adequate protections.

Advocates for benefit recipients responded by noting that extending Regulation E to EBT would help recipients in several ways. First, the liability protection would cover people in situations where ATM machines failed to dispense funds yet deducted benefits, or where ATM or POS machines erred and charged someone twice for the same transaction. Second, Regulation E provides more extensive protections than federal or state EBT regulations. Regulation E limits a person's total liability to $50, while administrative procedures typically state that recipients lose all the benefits that are improperly used before the loss or theft is reported.[110] If all the benefits are used, the person loses all the benefits. This raises an equity concern since, without the Regulation E protections, benefit recipients whose cards are lost or stolen are treated differently from other consumers. Third, advocates noted that the monthly financial statements required by Regulation E would help recipients better plan and manage their personal finances. Fourth, advocates challenged the states' assumption that benefit recipients "are more likely to lose their cards, or … perpetuate fraud than the average citizen."[111] Finally, advocates argued that extending Regulation E protections would add minimal costs to EBT.

In response to the conflicting claims, the USDA sponsored a one-year EBT pilot project that explored the use of Regulation E in six locations in New Jersey and New Mexico.[112] The results, published in 1997, found that Regulation E had no significant impact on either the rate of benefits reported as lost or stolen or benefit replacement costs. While Regulation E did increase the administrative costs to states for processing and investigating claims, the study found that these costs resulted from poor organizational designs and could be reduced by redesigning jobs and merging lost/stolen card services with the EBT vendors' help desk services. Nevertheless, the Federal Reserve reversed itself and declared that EBT accounts were not "consumer asset accounts" and were therefore exempt from Regulation E.[113] The Electronic Funds Transfer Association (EFTA), an EBT trade association, claims the decision to exempt EBT from Regulation E was instrumental in EBT's development. Without the exemption, so the EFTA argues, states would have delayed implementation due to fears of open-ended liabilities.[114]

***Issue #6: Interoperability: A Recipient's Perspective***

Under the paper-based system of food stamps, recipients could use their benefits at any authorized food-stamp retailer. A resident of northern Indiana, for example, could cross the border and use food stamps to shop at stores in Michigan, just as New York residents could shop in New Jersey. Similarly, non-food stamp benefits could be used anywhere in the country. TANF recipients in Oregon, for instance, could cash their benefits and use the cash in California. Under EBT, states could end this practice by requiring that benefits be used only in the issuing state. This possibility led advocates for benefit recipients and merchants to raise the issue of interoperability.

Interoperability refers to the ability of EBT systems in different states to communicate with each other. When EBT first began, interoperability was a key issue since many states were pursuing stand-alone procurements, and there existed no guarantees that EBT systems in any given state would be compatible with others. In response, some states voluntarily addressed the problem by collaborating in the development of QUEST.

Overseen by the National Automated Clearing House Association, QUEST is a series of evolving rules intended to create a "uniform operating environment for EBT."[115] The voluntary QUEST protocol currently is used in 31 of the 41 states with statewide EBT systems, and benefit recipients who reside in a QUEST state can access their food stamp and non-food stamp benefits in other QUEST states. The QUEST logo may be displayed at participating ATM and POS machines, which visually informs consumers that their benefit cards are accepted at that machine. This protocol has helped to preserve the portable nature of food stamp and non-food stamp benefits by preventing the proliferation of incompatible EBT systems.

Nevertheless, QUEST is an imperfect solution. Since the protocol is voluntary, states do not have to participate, which can lead to problems. For example, benefit recipients residing in the neighboring cities of Gallup, New Mexico, and Window Rock, Arizona, are unable to shop in each others' cities since Arizona is a QUEST state but New Mexico is not. [116] The result is that people potentially are limited in their choice of shopping places, and merchants lose out on sales.

Realizing that a lack of interoperability could derail the full implementation of a national EBT system for food stamps, Congress passed the Electronic Benefit Transfer Interoperability and Portability Act of 2000. This law requires states to develop interoperable EBT systems for food stamp delivery, thereby ensuring the portability of food stamp benefits across state lines. While the law does not address the portability of non-food stamp benefits, that may be less of an issue since those recipients could cash the benefits in the issuing state and spend the currency in any location of their choosing.

***Issue #7: Privacy***

Prior to EBT, benefit recipients could use their benefits without the government knowing how they were being used. Food stamp recipients used their coupons at stores, and merchants ultimately redeemed those vouchers, but in the process no records were created that could link a transaction to a person. EBT has changed that.

Unlike the old system, EBT generates a record of each transaction. At a minimum, the system records the transaction date and time, the total amount of the transaction, the type of benefit used (e.g., food stamp or cash), and the location of the transaction.[117] The potential exists to expand EBT to track the kinds of goods being purchased. The USDA conducted a pilot program in South Carolina to demonstrate the feasibility of linking EBT transaction data to the bar code data scanned at supermarket cash registers.[118] While information currently in EBT systems is not shared with merchants or ATM owners, the state can use the information to detect fraud or in other ways it sees fit. This ability raises questions about how client information is used and how to balance the state's interest in preventing fraud and delivering effective services against privacy interests. One way that the state can strike this balance is by developing guidelines regulating how information can be used and who can see that information.

A related issue that has concerned some advocates is the technological ability to link EBT to other parts of the social service system. New Mexico, for instance, plans to make EBT capable of recording the time an individual spends on workfare assignments.[119] Eligible benefit recipients in New Mexico, as in other states, are required to spend a certain number of hours each week in approved work activities; failure to comply may result in sanctions or loss of benefits. Some critics question whether the state should collect data on the same card used to dispense benefits. Errors could result in eligible recipients being unable to use their benefits until the problem is resolved and thus impose undue hardships on low-income individuals.

***Issue #8: Card Replacement***

Having a card lost or stolen is a potentially serious problem for benefit recipients since they cannot receive their benefits until a replacement card is issued. USDA regulations require that cards be replaced within two days, but 26 states have received waivers that instead allow them to replace lost or stolen cards within three to five days.[120] Opinion is split over whether this is a reasonable or punitive policy.

Card replacement is a significant cost in some states. Maryland estimates that it replaces 5 to 6 percent of its cards each month.[121] To discourage lost cards and reduce costs, some states charge replacement fees. These fees are permitted under USDA regulations, and the fee varies among states. Both Minnesota and Colorado charge $2.[122] While it makes sense on one level to assess replacement fees, some advocates argue that these fees, which normally are deducted from a person's benefits, punish people who are not trying to cheat the system, but honestly may have lost their cards.

***Issue #9: Access to Farmers' Markets***

The purpose of FSP is to help low-income Americans purchase nutritious food. While the overwhelming majority of food stamp purchases are made at supermarkets, farmers' markets are also a popular venue for food stamp purchases. These markets provide benefit recipients with access to some of the freshest and most nutritious food available. Under the paper-based system of food stamps, recipients could shop at farmers' markets and use their food stamps like cash. However, the move to EBT changed that; since many of these markets are held outdoors, they lack access to the computer systems and telephone lines needed to process EBT, which threatens to prevent recipients from shopping there.

To preserve access, the USDA began experimenting with ways of tailoring EBT to the farmers' market environment. The first pilot began in 1998 in Hawaii and involved a scrip system.[123] When food stamp recipients arrived at the market to shop, they first went to the manager's booth, which was equipped with POS equipment. The manager would debit the EBT card for the amount requested by the recipient and provide scrip that could be used to purchase goods at various stalls. If the recipient had scrip remaining at the end of the day, the manager's booth collected it and credited the recipient's EBT account. Scrip projects have been replicated at other sites around the country, including New Mexico and Washington State.

More recently, states have been experimenting with wireless technology, which does not require the installation of phone lines, at farmers' markets. The hope is that this will allow every market

vendor to accept EBT, thereby eliminating the need for scrip. Florida experimented with wireless technology in 2000, but technological difficulties troubled the initiative. Meanwhile, New York City conducted a pilot in 2001, but the project's success remains undetermined since evaluation has not been completed. The District of Columbia also is considering the use of wireless technology.[124] While the idea remains unproven in a farmers' market setting, it has gained popularity. The farm bill that was passed by the U..S. Senate in February 2002 and currently is in conference committee, provides $3 million in funding for wireless technology.[125]

**Merchant Concerns**

EBT's impacts are not limited to governments and benefit recipients. The 156,000 retail establishments (e.g., groceries, convenience stores, drugstores, and supermarkets) authorized to redeem FSP benefits form a group with both a distinct set of financial interests in EBT and a unique role in its success.[126] These retailers enjoy access to a national food stamp market valued at $15 billion a year,[127] an interest that leads them to monitor policy changes to the FSP closely. It is important to understand EBT's impacts on merchants, who have five areas of particular concern:

- System costs
- Government reimbursements
- Technological reliability
- System interoperability
- Cash flow

***Concern #1: System Costs***

Merchant participation in EBT is voluntary, though essential to success. The draw for merchants is supposed to be EBT's ability to reduce the time and costs involved in handling food stamp transactions, but it is unclear whether these savings have materialized. In fact, the various research studies that have been undertaken offer contradictory conclusions.

*EBT's Impact on Operating Costs for Food Stamps*

Conventional wisdom, merchant feedback, and previous research indicate that paper food stamp transactions cost merchants more to complete than non-food stamp transactions, cost differences that advocates claimed would be at least partially alleviated by EBT. Food stamps are restricted to the purchase of certain goods, requiring cashiers to distinguish between eligible and ineligible goods. The manual system requires cashiers to categorize goods and accept the appropriate payment forms, which results in slower checkout times. At the end of day, merchants need to handle, deposit, and reconcile paper food stamps transactions. Additionally, merchants incur costs related to training staff to recognize food-stamp eligible goods, reshelving items not purchased due to insufficient food-stamp balances, failing to capture all proceeds due to manual accounting errors, and losing interest during the time between accepting a food stamp and depositing it at a bank.[128]

While many of the same kinds of costs are associated with EBT, advocates argued that EBT would reduce certain costs and eliminate others. In particular, it was thought that EBT would eliminate the back-office costs associated with paper food stamps, which merchants historically

have complained about as being the most onerous part of participating in the FSP. However, various research studies have documented mixed results regarding EBT's impact on merchants' operating costs.

One of the first studies to address merchant costs was the USDA's 1994 evaluation of Maryland's statewide EBT program. Through the use of longitudinal data, the USDA compared eight kinds of merchant costs under electronic and manual food stamp systems. The study concluded that EBT had no impact on total costs. While EBT lowered total merchant costs by $0.06 per $1,000 in redeemed benefits, this effect was deemed statistically insignificant.[129] EBT did significantly lower the back-office costs involved with handling, reconciling, and redeeming food stamps, but this decrease was offset by a significant increase in checkout costs.[130] In spite of this outcome, the evaluation found that Maryland merchants generally preferred EBT to paper food stamps and claimed EBT resulted in "easier handling" of transactions.[131]

These general findings have been supported by other studies. For example, a 2000 study of merchant EBT costs in Pennsylvania sponsored by the Food Marketing Institute and the Pennsylvania Food Merchants Association found that EBT reduced the costs involved with handling paper coupons at the end of the business day but increased the time needed to complete a food stamp transaction at the register by 19 seconds, due in part to the time spent waiting for the EBT system to authorize the transaction.[132] This translated into an overall net cost increase of $0.064 per food stamp transaction. The finding that EBT lengthens transaction times was consistent with an earlier USDA study of the Reading, Pennsylvania, pilot (the nation's first EBT project), which concluded that EBT "adds 10–15 seconds to the transaction time."[133] Though consistent with previous evaluations, the Pennsylvania finding attracted criticism from a variety of sources. Merchants complained that the cost figures were too low because the study omitted the costs incurred when EBT systems fail. Other interested parties like EBT vendors, meanwhile, argued that the study was unfair because it was too small in scope and occurred too soon after Pennsylvania implemented its statewide system.[134]

*EBT's Impact on Merchants' Capital Costs*

Besides affecting operating costs, EBT participation carries potential capital costs for merchants since they need to obtain the necessary equipment to process EBT transactions. To prevent the shifting of program costs to merchants from the government, federal regulations specify that "authorized retailers shall not be required to pay costs essential and directly attributable to EBT system operations."[135] Federal regulations also require states to provide free POS equipment designed to process only EBT transactions to those authorized retailers who request it.

These regulations have allowed smaller retailers who never previously accepted electronic payments of any kind to obtain the equipment needed to remain in FSP and encouraged them to begin accepting commercial credit and debit card transactions.[136] The USDA's 1994 evaluation of Maryland's statewide EBT program found that many of the merchants who had never engaged in electronic commerce prior to Maryland's implementation of EBT either joined or planned to join a commercial payment network.[137] Accepting the free equipment may tie smaller stores, particularly those in distressed communities, and their customers closer to the financial mainstream.

A negative aspect of this policy pertains to larger stores like supermarkets already equipped to handle electronic payment. Since the free POS equipment provided is restricted for EBT transactions and since the larger retailers wanted to accept other forms of electronic payment to accommodate their non-food stamp customers, these retailers have opted to upgrade their existing equipment at their own expense. Even stores with free equipment have purchased additional machines in order to serve food stamp customers at every counter. Since POS terminals cost around $450 to $500 per unit, converting to EBT represents a potentially significant expense for retailers.[138] This has led some merchants and industry groups to argue that states implementing EBT have violated federal regulations and shifted essential EBT costs to merchants.

*Future Capital Costs Associated with EBT*

The main capital cost incurred by merchants under EBT, then, has been the expense of upgrading existing electronic payment systems or investing in new equipment. A potentially significant future cost involves the purchase of equipment that automatically classifies food items as food stamp eligible or ineligible. As mentioned earlier, food stamps may be used only to purchase certain goods, and traditionally it has been the responsibility of cashiers to sort purchases into the appropriate categories. In a further attempt to reduce food stamp fraud, PRWORA contains a clause that requires food stamp retailers to deploy, to the extent possible, electronic systems that differentiate between FSP eligible and ineligible items.[139]

Complying with this mandate—which would require merchants to integrate their cash registers, optical scanning equipment, and POS equipment—is technologically feasible for many retailers, especially supermarkets, but is potentially expensive. One study estimated a national implementation cost at $4.6 billion,[140] and it is unclear who would pay this cost—government, private industry, or both—and if the strategy is cost justified since there remain ways in which the technology could be manipulated to allow fraud.

*Merchant Costs for Non-Food Stamp Benefits*

EBT also may have influenced the costs associated with non-food stamp benefits like TANF. The USDA's 1994 evaluation of Maryland's EBT program argued that providing customers with access to non-food stamp benefits is a voluntary action on the part of merchants and would only be undertaken if the benefits exceeded the costs. While merchants incur costs by providing access to non-food stamp benefits, it is assumed that merchants benefit since recipients will use part of the benefits to purchase non-FSP goods.[141] Furthermore, many states allow merchants to levy surcharges on non-food stamp benefit transactions, and these fees represent a revenue stream.

*Concluding Observations on System Costs*

Even if EBT has increased the capital and operating costs borne by merchants, there are few available responses. While participation in EBT is voluntary under USDA regulations, merchants need to adopt EBT or risk being shut out of the lucrative food stamp market. The government decision to deliver all food stamp benefits electronically essentially has required merchants to embrace the technology and costs associated with the governmental rules and regulations implementing the technology—or risk losing sales and customers.

***Concern# 2: Government Reimbursements***

When merchants who have not requested government-issued POS terminals process EBT transactions through their private equipment, they must pay a transaction fee to the commercial network that processes the transaction. Such fees also apply to regular credit or debit card transactions. In the context of food stamps, these transaction fees represent a new cost to merchants since they did not incur them under the paper system. These fees vary with transaction volumes and range from $0.02 to $0.20.[142] Many merchants have argued that the government should reimburse them for these fees for three reasons.

First, as just stated, merchants did not pay the fees prior to EBT and contend they improperly have to pay costs essential to the FSP, a violation of federal regulations. Second, merchants note that their decisions to process EBT through private rather than government-purchased equipment often translates into savings for the state since the state does not have to provide free POS equipment. Third, USDA regulations specify that "the state agency may, with USDA approval, share appropriate costs with retailers if the equipment is also utilized for commercial purposes."[143]

In principle, reimbursements are supposed to compensate merchants for the average transaction fee paid to the commercial processor. Among the states that provide reimbursements, the payments range from $0.01 to $0.08 per transaction.[144] The size of the reimbursement has been debated in many states, and merchants often demand a higher fee, as happened in Nebraska where merchants asked for $0.14 per transaction before ultimately receiving $0.05.[145] Meanwhile, opponents of the reimbursements charge that reimbursements are a way for merchants to tap the public coffers. After all, merchants do not complain about paying the fees on credit or debit card payments made by wealthier customers, so why should customers who receive government benefits be treated differently?

***Concern #3: Technological Reliability***

A third merchant concern, which has been an issue since the first EBT pilot in Reading, involves EBT's technological reliability.[146] As mentioned earlier, system failures impact both benefit recipients and merchants. Recipients may be unable to purchase goods during system failures, and merchants may lose sales. Merchants therefore have an interest in ensuring that system failures seldom occur, but some research has questioned EBT's technological reliability. One study conducted by the Food Marketing Institute found that EBT outages occurred an average of once every three days during the summer of 2000.[147] Improving the reliability of EBT has become a significant concern for merchants, and many trade associations have advocated specific plans for improving the system.

Currently, merchants, including the Food Marketing Institute, are advocating for the inclusion in EBT of a "store-and-forward" process similar to the one commercial credit card companies use when their systems fail.[148] Instead of depending on the manual voucher process described earlier, merchants would like EBT systems to incorporate a limited type of technological IOU that permits them to make an electronic sale and then settle the transaction after the computer network has been repaired.[149] If it turns out that the benefit recipient has exceeded the amount of available benefits, merchants also want the ability to collect whatever benefits are available instead of losing the entire sale, as currently happens.[150]

***Concern #4: Interoperability: A Merchant's Perspective***

Though the 1996 welfare reform legislation required states to develop EBT systems by October 1, 2002, it did not require them to use a particular technology. States were free to develop systems as they saw fit, resulting in systems that were sometimes incompatible. For example, most states developed on-line EBT systems, but Ohio and Wyoming implemented off-line technology. Just as this development would have deprived benefit recipients of the ability to use their benefits anywhere in the country, it also would have prevented merchants from selling goods to certain customers. This would have been particularly burdensome for merchants serving market areas transcending state borders and for larger chains that would have had to purchase different EBT equipment in each state where they operated.

Advocates for merchants and recipients realized this potential problem quickly and advocated for government action. One early response was for individual states to achieve interoperability by deploying EBT equipment on both sides of a border. For instance, Ohio allowed merchants on the Indiana side of the border to participate in Ohio's EBT system. Ohio pursued this strategy to ensure that recipients living near the border would retain access to FSP retailers.[151]

A second, more complicated response to the issue of interoperability involved states voluntarily developing and adhering to the QUEST protocol, discussed earlier. While QUEST's growth limited the problem of interoperability among the 31 participating states, merchants remained concerned about the lack of a single national EBT standard. Since participation in QUEST was voluntary, it remained possible for states to develop different EBT standards, thereby requiring merchants to invest in different kinds of POS equipment in each market. Merchants and their trade associations consequently continued to lobby for a single EBT standard that would guarantee national interoperability.

This goal was achieved in the form of the Electronic Benefit Transfer Interoperability and Portability Act of 2000. The law requires states to develop interoperable EBT systems by October 1, 2002, though four states were exempted.[152] To further help merchants, the law prevented states from shifting the compliance costs to authorized food stamp retailers, though states with existing EBT systems that were not interoperable would have to invest in system upgrades. To aid these states, Congress agreed to pay 100 percent of the conversion costs, provided the total amount spent on helping all of the states in a given year does not exceed $500,000. Moreover, the act also prevented states from placing limits on the geographic areas where recipients could use their benefits. From the merchants' perspective, this legislation has resolved the matter of interoperability.

***Concern #5: Cash Flow***

In states where benefits in addition to food stamps are delivered through EBT, recipients typically have the ability to request part of their cash benefits from food store cashiers, though many states permit merchants to charge for this service. While larger merchants generally have adequate cash flow to provide cash back, smaller merchants or merchants in areas with high concentrations of benefit recipients may not have enough cash to meet the demand. These merchants may respond by refusing to provide cash back, which not only prevents recipients from accessing their welfare benefits, but also may cause merchants to lose out on sales if

recipients had planned to use the cash to purchase items like toiletries that cannot be brought with food stamps.

***Merchants and Banks***

Financial institutions like banks also have benefited from EBT. Under the system of paper food stamps, banks grudgingly accepted food stamp deposits from merchants. The banks then counted and stored the food stamps and ultimately sent them to a Federal Reserve Bank for redemption. Under EBT, merchants handle their food stamp deposits electronically through the automated clearinghouse system, and banks no longer need to accept grocer coupon deposits. Processing food stamps electronically has allowed banks to eliminate the costs associated with handling food stamps without having to stop accepting food stamp deposits.[153]

**Expansion of EBT**

By October 1, 2002, EBT systems are supposed to be implemented in all 50 states, the District of Columbia, and Puerto Rico. These systems will be used to deliver food stamp benefits, and states will have the option to use EBT to deliver non-food stamp benefits. Moreover, the supporting electronic infrastructure could be modified and expanded to deliver additional federal and state welfare benefits. One program suited for a national expansion of EBT is the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), though there are issues involved in such an expansion. The next section will discuss those issues, and the following sections in turn will discuss expansion of state programs and attempts to increase EBT's effectiveness in countering fraud.

***National Expansion to WIC***

Like food stamps, WIC is a federal program administered by the FNS, but it is a grant, not an entitlement, program. Eligible low-income pregnant and postpartum women, infants, and children (up to age five) at nutritional risk receive vouchers that may be used to purchase a certain basket of approved nutritious foods at authorized retailers.[154] During federal fiscal year 1999, $3.9 billion in federal money was used to serve an average of 7.4 million participants per month.[155]

Expanding EBT to WIC is a logical step since the program resembles food stamps. WIC and FSP provide food benefits, and many clients participate in both programs. EBT consequently could be used to reduce WIC's operating costs and fraud losses and produce many of the same benefits associated with electronic food stamps. Using EBT to deliver WIC also could help more eligible citizens receive benefits. Since WIC is a grant program, it operates on a fixed budget and not all eligible citizens receive aid. Every dollar saved in administrative costs therefore represents a dollar that could be used to help people.

As of the summer of 2001, seven WIC initiatives involving 14 states were underway. As with their electronic food stamp programs, states are procuring WIC EBT services through stand-alone or joint procurements. Table 5 summarizes the status in each state.

| Table 5: Status of Electronic WIC Initiatives (USDA) | | | |
|---|---|---|---|
| **Region** | **State** | **Procurement Type** | **Status** |
| Northeast | CT, ME, MA, NH, RI, VT | Joint | Planning stage |
| Mid-Atlantic | NJ | Stand-alone | Planning stage |
| Midwest | MI, OH | Stand-alone | Pilots running |
| Southwest | NM, TX | Joint | Pilot running |
| West | NV, ND, WY | Joint | Pilot running |

Based on planning documents and pilot programs, it is apparent that electronic WIC will differ in several ways from electronic food stamps.[156] The main difference will be the use of hybrid technologies that meld on-line and off-line EBT. WIC lends itself to an approach that blends the two, and 11 of the 14 states planning or experimenting with WIC are pursuing this option. On-line technology can be used for the purchase of food at stores, and the off-line component permits the storage of individualized health and immunization records (which are part of the WIC program) directly on a person's benefit card. A disadvantage of delivering WIC through a hybrid technology is that it requires states to create the appropriate infrastructure. Most have on-line EBT systems in place, and the use of new technologies would require purchase of new equipment. This would result in an additional EBT cost, which likely would become a contentious issue between the states and merchants.

A second difference between food stamps EBT and WIC EBT is that new system vendors have participated in the various WIC pilots. CSI holds the contract in Michigan, but Stored Value Systems, a new contender in the EBT market, has become active in several states. Additionally, some states are trying to avoid hiring prime contractors from the private sector. Wyoming is serving as its own prime contractor, while Texas and New Mexico are planning to do the same in their joint procurement.

***State Program Expansion***

Once a statewide EBT system is constructed, states can choose to deliver other benefits in addition to food stamps. Public childcare subsidies may be delivered through EBT in a manner that reduces the administrative costs associated with the paper-based systems, thereby freeing up funds that could be used to meet the growing demand for subsidized childcare or to increase reimbursement rates. In the process, childcare providers would be able to receive payments faster. Oklahoma, for example, is operating a pilot EBT childcare program in Comanche County that has reduced reimbursement time from six weeks to one week.[157] The state, which plans to expand the initiative statewide during 2002, hopes the system will lower administrative costs, reduce fraud, and encourage more providers to participate in subsidized childcare programs. When it is fully implemented, Oklahoma will provide electronic childcare benefits to approximately 49,000 children enrolled in childcare programs.[158]

Technologically, an EBT childcare program could operate by installing POS machines at childcare provider locations. Benefits could be delivered through the same benefit card used for food stamps. Parents would swipe their card when they dropped their children off and again when they retrieved them.[159] Such automation could reduce the time parents, providers, and state agencies devote to completing and reviewing attendance, reporting, and tracking forms. Additionally, states would be better able to monitor whether parents are bringing their children to

childcare and if childcare centers are serving only the number of children authorized by their licenses, thereby better ensuring that children are receiving adequate care. Of course, privacy concerns could arise, depending on how this information is used.

Another concern pertains to the price the state pays to the EBT vendor. ACS receives $5.24 per participating child per month in Oklahoma, the only state currently experimenting with EBT for subsidized childcare payments.[160] That price is significantly higher than the typical CPCM for food stamps EBT, but it may drop as more children and providers are brought into the program. Other states have expressed interest in expanding EBT in this way, which demonstrates the potential that the technology has for delivering all forms of social welfare benefits in an integrated manner.

***Strengthening EBT's Ability to Deter Fraud***

EBT provides states with a potentially effective way of addressing food stamp fraud. Few states, however, are taking advantage of that potential. GAO has found that only five states with statewide EBT programs—Florida, Missouri, South Carolina, Texas, and Maryland—use EBT to detect fraud among benefit recipients, and those five states accounted for 99 percent of the individual traffickers caught nationwide between federal fiscal years 1998 and 1999.[161] States like Florida and Texas use EBT transaction records to identify stores likely to be engaging in trafficking and then identify the individuals likely to traffic benefits who frequent the stores. While identifying stores first and benefit recipients second is similar to the traditional method used by FNS, EBT allows states like Florida and Texas to develop much more comprehensive lists of potential traffickers.[162] Meanwhile, other states like Missouri use EBT records to analyze all benefit recipients, not merely those who shop at certain stores. Maryland exemplifies a third strategy and partners with the FNS to identify potential malefactors. The Office of the Inspector General (OIG) analyzes Maryland's EBT records, identifies potential traffickers, and refers those names to the state for investigation.[163]

If EBT is to help states reduce fraud within the FSP, FNS needs to encourage states to use it. This is difficult since FNS has had to struggle with management practices and systems that have prevented it from responding to fraud. For example, much of the data FNS has is outdated, and different regional offices follow different procedures for investigating fraud. Communication between FNS and the states also has been problematic.[164] FNS recently has attempted to improve its performance by encouraging its regional offices to develop consistent policies and to collaborate with states to deter fraud.[165] Also, since investigating fraud carries a high financial cost for states, FNS in the past has proposed allowing states to keep a percentage of any benefits recovered from traffickers, though opinion is divided regarding whether those amounts would cover the expenses involved with investigating fraud.[166] Consequently, this incentive has not yet been implemented.

One way to enhance EBT's fraud fighting ability would be through the use of biometrics. Using such technologies as fingerprinting, hand geometry, retina scan, voice verification, and signature verification could prevent fraud by ensuring that the person accessing benefits at an ATM or POS machine is the actual person entitled to those benefits.[167] GAO has recommended fingerprinting as the most effective method for countering fraud in EBT programs, and some states have experimented with that technology.[168]

As of spring 2002, Arizona, Texas, and Los Angeles County, California, all require benefit recipients to provide finger images when they apply for benefits. The fingerprints are then cross-referenced against a database to see if the applicant already is receiving benefits under a different name. A 1994 pilot program in Los Angeles County that incorporated finger imaging into the application process for General Relief produced estimated savings of $5.4 million.[169] It is important to note that technologies like finger imaging so far have been used only when people enroll for benefits, not when they make transactions at POS or ATM terminals.

Texas was the first state in the nation to require finger imaging of food stamp recipients for program enrollment, in 1996. As of 2001, the state had created a database containing the fingerprints of 1.2 million clients and had saved $6 million to $11 million in duplicate benefit issues.[170] The state at one point hoped to broaden its program to include POS machines. So, instead of keying a PIN at a POS terminal to access benefits, a benefit recipient would place one finger on a special pad that would scan the image, cross-reference it, and authorize transactions.[171] While the expansion never occurred, the debate raised two general objections to the use of biometrics.

First, critics claimed that biometrics invade the privacy of benefit recipients by creating a governmental database of personal biological information like fingerprints and retinal images. Second, any widespread expansion of biometrics would increase EBT's costs since equipment like fingerprint readers would need to be installed at ATM and POS machines. Hypercom, a Phoenix-based firm, recently developed a fingerprint scanner that connects to POS terminals and costs $120 per unit to install, but installing such devices at every POS terminal in a state would require a significant expenditure.[172]

Another problem with biometrics is that some states have begun to doubt its cost effectiveness. In 2001 Missouri's state auditor actually recommended removing biometrics from the state's EBT program.[173] Missouri had been placing photographs of benefit recipients on their EBT cards, but the state auditor concluded that the photographs were an ineffective way of countering fraud. Since federal regulations allow family members to use the recipients' cards, merchants were ignoring the photographs and allowing anyone with a card and valid PIN to purchase food. This finding may be generalizable to other states that place photographs on EBT cards.[174]

**Lessons Learned from the EBT Experience**

Almost 20 years have passed since the USDA established the first EBT pilot in Reading, Pennsylvania. Most states have EBT systems in place, and the remainder must develop systems by October 1, 2002. However, it appears that seven states—California, West Virginia, the Virgin Islands, Guam, Delaware, Iowa, and Maine—will miss the deadline. Of the states that have implemented EBT, many have moved beyond the congressional mandate to provide electronic food stamps and are delivering non-food stamp benefits like TANF as well. Additionally, a national expansion to WIC appears likely. In spite of this growth, EBT's development has not been devoid of problems. When taken together, EBT's development, growth, and problems teach three lessons that policymakers should consider when developing technological delivery mechanisms for social welfare benefits.

First, the EBT experience illustrates the danger of assuming that technological solutions automatically lower costs. Though EBT gained prominence in the 1990s as a result of the National Performance Review, the Federal Electronics Benefit Transfer Task Force, and PRWORA, it was not a new or untested concept. A body of evaluation literature existed as a result of earlier pilot programs in Pennsylvania (Reading), New Mexico (Albuquerque), Minnesota (Ramsey County), and Maryland, and these studies indicated that EBT was not necessarily an improvement over the status quo. In fact, the Maryland study revealed that EBT increased the administrative costs of non-food stamp programs like TANF and was cost-competitive with paper food stamps. Evaluations also indicated that benefit recipients and merchants, though supportive of EBT, incurred costs due to the technology. In spite of the available evidence, it still was assumed that electronic benefits automatically would be cheaper than paper. EBT therefore teaches that when evaluating technological tools, decision makers need to view that technology as a potential improvement to a process rather than as an automatic improvement.[175]

Second, EBT demonstrates the unintended consequences that may result when one stakeholder's interests are elevated over those of others. The EBT story suggests that the federal government elevated its interests over those of the states, merchants, and benefit recipients. The government hoped to save money in the short term. To ensure that outcome, the government used its rule-making powers to require cost neutrality. When coupled with changes in EBT's economics, cost neutrality regulations increased EBT's costs to the states, which in turn shifted costs to benefit recipients and merchants. EBT therefore may not have benefited all food stamp stakeholders. The federal government may have saved money, or at least maintained a certain level of expenditure, but it redistributed costs among other stakeholders.

Third, EBT illustrates the problems with implementing technology in a decentralized way. While PRWORA required states to implement EBT for food stamps, the act provided states with the flexibility to develop systems as they saw fit. Yet, the FSP is a national program that transcends state lines since benefits are intended to be portable. By implementing EBT in a decentralized fashion, Congress created a situation where states could have technologically incompatible systems, resulting in food stamp benefits that would not be portable. As discussed earlier, EBT interoperability and portability were key concerns for both merchants and benefit recipients. Though Congress responded by passing the Electronic Benefits Transfer Interoperability and Portability Act, this issue shows the difficulties that result from implementing a national program in a decentralized way.

**The Short-Term Challenges**

EBT is here to stay, and states have invested in the technology to comply with the federal mandate. As time passes, states may be able to grow EBT into a system that can deliver myriad social welfare programs in a manner that saves money and provides better services. Before that happens, however, states and the federal government need to address the economic issues involved in EBT, including the market's competitive dynamic.

Addressing this situation is important since EBT contracts in 25 of the 41 statewide programs expire between 2002 and 2003 (see Table 6). These expirations will raise a number of issues. Having gained experience with EBT systems, renewing states have a better grasp of the services they want to provide. However, the market is dominated by CSI, which serves as the prime contractor in 75 percent of the states with statewide programs and as a subcontractor in others.[176] It therefore is unclear whether states will be able to negotiate for the services and costs they desire or whether they will have to accept CSI's terms. When coupled with EBT's fluid economic condition, states may encounter higher costs.

**Table 6: Pending Contract Expirations (Center for Community Capitalism)**

| Expiration Year | State |
|---|---|
| 2002 | AL, DC, LA, MD, NJ, NM, OH, UT |
| 2003 | AR, CO, CT, GA, HI, ID, IL, KS, MA, MO, NH, NY, NC, OK, RI, VT, WA |

Based on the experiences of the seven states that already have issued at least their second request for proposal (RFP) for EBT contracts, price increases appear likely. For example, New Jersey's second contract with e-Funds differs from the first by requiring interoperability and limiting the number of free ATM transactions, but it also raised the CPCM.[177] Similarly, when South Carolina negotiated a second contract with CSI, the new contract specified system interoperability but doubled the CPCM.[178]

***Coping with EBT's Competitive Dynamic***

A key reason for these price increases has been the change in EBT's competitive dynamic. The combination of declining caseloads, government regulations, poor financial forecasting, and the aggressive pursuit of business by one vendor has turned EBT into a market with diminished competition. CSI is the industry leader and enjoys the experience and advantages that accompany that position, but ACS's recent acquisition of Lockheed Martin IMS and Montana's recent decision to award its EBT contract to TRW suggest renewed competition in the EBT market, though it is too soon to know.[179] Unless the competitive dynamic of the EBT market changes, all states rebidding their EBT contracts may find themselves facing higher prices. States have three choices for dealing with these higher prices.

First, states simply could accept the higher prices provided by the market, abandoning the goal of saving money through EBT and striving instead to minimize the amount of additional funds they have to spend. One way to do this would be by shifting costs to benefit recipients and merchants. The fees and surcharges that benefit recipients already pay in many states are a manifestation of that approach. Of course, this results in the ironic situation where a technology intended to reduce stakeholder costs requires them to spend more—which raises the question, If EBT requires states to spend more on a technology that requires stakeholders to pay more, what is the point of switching from paper to plastic?

Second, states could follow the lead of Texas and Wyoming and serve as their own prime contractors. After Texas's prime EBT contractor, Transactive, left the EBT market, the Lone Star Technology Department of Texas's Department of Human Services became the state's prime EBT contractor. The EBT system was then bid in three parts—central processing, retail

management, and customer service—that were awarded as subcontracts to three different vendors.[180] Such a strategy may benefit states in several ways. Not only does the state retain direct control over its EBT system and the ability to develop the system as it sees fit, but this strategy may foster increased competition among EBT vendors. While few firms have the ability to serve as prime contractors, many firms have the technological resources needed to provide system components. The Center for Community Capitalism's survey of state EBT experiences illustrates this fact: While only CSI, e-Funds, and ACS/Lockheed have served as prime contractors, 11 other firms currently serve as subcontractors in various states. A further advantage of the Texas model is that it can be employed in a coalition system and thereby help states achieve economies of scale. A disadvantage of this approach, however, is that it requires states to have the resources and abilities needed to manage the EBT and keep up with the constant changes in electronic payment technology.[181]

One state attempting to follow the lead of Texas and Wyoming is Louisiana, which is selecting a vendor for its next generation of EBT. The Department of Social Services requested proposals both for a total EBT system and for the three constituent system parts—central processing services, call center services, and retailer management services. Depending on the bids it receives, Louisiana may pursue a total system developed by one vendor or select a different vendor for each system part, as have Texas and Wyoming.[182]

Third, states could stop using EBT to administer non-food stamp benefits, since various evaluations have indicated that EBT reduces the costs of food stamps but increases the costs of delivering non-food stamp benefits. One possibility would be to deliver non-food stamp benefits through EFT. Not only is EFT extremely cost effective, it also represents a way of connecting benefit recipients to the banking system. Moreover, EFT would eliminate many of the consumer issues raised earlier since having a bank account renders the vendor fee and surcharge issue moot, provides people with Regulation E protections, affords a higher level of privacy than EBT, and does not involve the issue of interoperability. A drawback to this option is that banks may be unsupportive of a program that requires many low-balance, high-volume bank accounts.[183]

***Dealing with Cost Neutrality – (SECTION NEEDS TO BE RE-WORKED)***

*A factor complicating state responses to higher prices is the federal cost neutrality requirement, a cornerstone of federal EBT policy. That requirement originated in 1993 during the planning stage of Maryland's EBT program. To avoid higher costs, the federal Department of Health and Human Services insisted on cost neutrality provisions, which eventually became part of the regulations that governed EBT's national expansion. Yet, while cost neutrality may be beneficial to the federal government, the policy may hurt the states and curtail EBT's development in several ways. The Federal Electronic Benefits Transfer Task Force, an outgrowth of the National Performance Review, elaborated on the problems that cost neutrality could cause in its 1994 EBT implementation report. The task force recognized that the cost-neutrality standard would penalize "states that have kept costs down the most—even when the shift to EBT would be cost-beneficial in the long run."[184] In other words, cost neutrality would mean that states with inexpensive and efficient paper programs would not receive enough federal funding to manage the switch to the more expensive EBT program, and such states would expend more state resources on EBT.*

to the realization that cost neutrality would create a financial burden for states, the task force argued that replacing cost neutrality with "a government-wide, multi-program 'cost-effectiveness' standard would recognize the interagency, multi-state, and multi-year aspects of the EBT effort."[185] The task force's recommendation was not adopted, and, as a result, states—particularly states that were operating efficient food stamp programs—were reluctant to adopt EBT because of the potentially higher costs. Maine, for example, traditionally has operated one of the most efficient paper food stamp systems in the country, and the move to EBT is expected to increase its food stamp costs by $550,000 per year.[186] Maine consequently has moved slowly on EBT and will miss the October 1, 2002, implementation deadline.

State responses to the cost-neutrality requirement are limited since it is a federal regulation that states cannot directly change. However, states should attempt to understand the impact that the requirement is having on their EBT programs and attempt to persuade federal decision makers to change the regulations.

***Adapting to Changes in Pricing Structures***

Even if new competitors enter the market, federal cost-neutrality requirements and shifts in the EBT market make it likely that states will pay more for EBT when they renew their contracts. This is because vendors have not liked the returns they have earned on their EBT contracts and will want to maximize their profits. Vendors may try to shift EBT pricing away from the CPCM model toward one of four main alternatives: a fee-for-service model, a tiered-pricing model, a caseload floor model, or some combination of models.[187] The possibility of new pricing structures means that states should be aware of the advantages and disadvantages of each.

*Fee-for-Service Model*

Under this pricing plan, a state would pay the vendor a fixed fee for every EBT service provided: a set amount for every call that benefit recipients place to the help line and every POS terminal provided to merchants. This model essentially shifts risks from the vendor to the state. Since vendors receive a fee for every service, they are immune to changes in the food stamp caseload, which may make the EBT market more appealing for vendors, especially if they find the current environment so risky that they refuse to participate. This theoretically could attract more competitors to the market. Meanwhile, states will save or lose money depending on the direction the caseload moves. The volatile nature of the food stamp caseload, at least in recent years, would render it difficult for states to develop accurate budget projections for EBT services. In addition, the fee-for-service model may impact the quality of EBT services provided by the vendor. Since vendors receive a payment for every service provided, they are rewarded, not penalized, for poor performance. For instance, if ineffective customer service requires a benefit recipient to call the help desk three times to resolve a problem, the vendor receives three fees.[188]

*Tiered Pricing*

Under a tiered system, the CPCM changes with caseload levels. Higher levels translate into a lower CPCM, while lower levels result in a higher price. The chief advantage of the model is that it better protects vendors from risk and allows states to realize economies of scale. However, tiered pricing already has been attempted in EBT contracts with little success. One problem with tiered pricing is that vendors have been unsure how to divide caseloads accurately into tiers and assign an appropriate price to each level. A second problem is that it is difficult to develop tiers

within joint procurements since different member states have different caseloads. New York and Rhode Island, for example, are both members of NCS, but they have vastly different caseloads. The question is, Should these states pay the same rate or should New York receive a lower rate than Rhode Island?[189]

*Caseload Floors*
This pricing model represents another method of mitigating EBT's risk to vendors. Under the model, states guarantee vendors a minimum revenue level, regardless of the actual caseload levels. While this model is appealing to vendors, there exists little incentive for states to endorse it since states will not receive any cost savings if caseloads fall.[190]

*Combined Model*
This model permits states and vendors to negotiate agreements that contain elements of the existing CPCM model and the three alternatives mentioned above. For example, the state and vendor could agree to a contract that combines a CPCM with tiered pricing. The two parties also could negotiate different pricing elements for each EBT service like customer service or transaction processing services. Because of the flexible nature of a combined model, its advantages and disadvantages would need to be evaluated on a case-by-case basis.[191]

Alabama, which in late 2001 was involved in the bidding process for its next generation of EBT, is attempting to create a hybrid model combining CPCM, tiered pricing, and a caseload floor. The CPCM paid by the state will vary depending on which tier the caseload level falls in, but these tiers have been drawn more narrowly than in the past. Additionally, the state guarantees a caseload floor. If the caseload falls below the range contained in the lowest tier, the contractor will receive the CPCM specified in the lowest tier. There also is a caseload ceiling—that is, if the caseload exceeds the highest tier, the state would pay the CPCM specified in the highest tier.[192] Since Alabama currently is negotiating the contract, it is too early to know if this hybrid model will represent an improvement in the pricing of EBT services.

***Choosing between On-Line and Off-Line Technologies***
Another challenge for states is deciding whether to adopt off-line technology. From a technological standpoint, off-line technology offers two advantages over on-line technology. First, the embedded microchip allows off-line cards to hold considerably more information than on-line cards. This capacity may expedite transactions, particularly internet-based ones since the chips can store electronic signatures,[193] thereby eliminating the need for customers to wait for and sign paper receipts generated at the register. Second, off-line cards are harder to counterfeit than on-line ones, reducing the possibility of fraud.[194]

Unfortunately, off-line technology carries several disadvantages. Chief among these is cost. While an on-line card costs $0.25 to manufacture, an off-line card's price ranges from $3.00 to $10.00.[195] Another significant concern is that the existing commercial payment environment is not designed for off-line cards. Most POS readers located in retail establishments are designed for on-line cards and are incapable of accessing the information stored on an off-line card's microchip.[196] Nevertheless, credit card companies, retailers, and the government have shown a growing interest in off-line technology. Credit card companies like American Express have introduced or plan to introduce off-line cards, while Target, a national retail chain, has begun

installing off-line technologies in its stores. Most interestingly, the Department of Defense has begun issuing off-line cards to 4.3 million uniformed and civilian employees,[197] which may speed the technology's growth and acceptance.

USDA began experimenting with off-line EBT technology to deliver social benefits in 1990. That year, the FNS sponsored a pilot program in Dayton, Ohio, that delivered food stamps electronically. In 1994 this program was expanded throughout the state of Ohio. Meanwhile, a second pilot occurred beginning in 1993 in Wyoming. That project used EBT to deliver both food stamp and WIC benefits. Evaluations of the various pilot programs revealed that off-line technology was a reliable method for delivering benefits, especially for WIC. Off-line technology lends itself to WIC because the detailed health and immunization records that are part of the program can be stored directly on the smart cards. However, the evaluations found that off-line technologies are more expensive to implement and administer than on-line EBT systems. Costs are expected to fall if more states adopt the technology.[198] However, this seems unlikely, since most states already have developed on-line systems and it seems implausible that they would switch technologies after having invested so recently in on-line systems—especially since the on-line platform remains the technological standard in most retail environments.

**Conclusion**

The EBT story and its lessons enrich the public policy process by demonstrating the strengths and weaknesses of a technological attempt to reduce the fraud losses and administrative costs of social welfare programs. These lessons are offered to help policymakers and public administrators improve the existing EBT program as it transitions into its next generation.

# Appendix A: List of Acronyms

| | |
|---|---|
| ACH | Automated Clearinghouse Network |
| ACS | Affiliated Computer Services, Inc. |
| AFDC | Aid to Families with Dependent Children |
| ARU | Audio Response Units |
| ATM | automated teller machine |
| CPCM | cost per case month |
| CSI | Citicorp Services, Inc. |
| DHHS | U.S. Department of Health and Human Services |
| EBT | electronic benefits transfer |
| EBTSAG | EBT Single Administrative Grant |
| EFT | Electronic Funds Transfer |
| EFTA | Electronic Funds Transfer Association (EFTA), |
| FNS | Food and Nutrition Service |
| FSP | Food Stamp Program |
| GAO | General Accounting Office |
| NCS | Northeast Coalition of States |
| OIG | Office of the Inspector General |
| PIN | personal identification number |
| POS | point of sale |
| PRWORA | Personal Responsibility and Work Opportunity Reconciliation Act |
| SSI | Supplemental Security Insurance |
| TANF | Temporary Aid to Needy Families |
| USDA | U. S. Department of Agriculture |
| WIC | Women, Infants, and Children |
| SAS | Southern Alliance of States |
| WSEA | Western States EBT Alliance |

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